We claim:-

1. A process for preparing a polymer comprising (meth)acrylate salt units by free-radical polymerization of (meth)acrylate salt with or without another monomer in an aqueous medium, which comprises using a supersaturated aqueous solution of (meth)acrylate salt.

2. The process of claim 1 wherein the supersaturated aqueous solution of (meth)acrylate salt used comprises 40 to 90 mol% of (meth)acrylate salt and 10 to 60 mol% of (meth)acrylic acid.

3. The process of claim 1 or 2 wherein the supersaturated aqueous solution of (meth)acrylate salt is cooled down to below 40°C by producing a more than 100 mol% neutralized first (meth)acrylate salt solution and subsequently (meth)acrylic acid is added in a continuous operation and, prior to the complete precipitation of the resulting (meth)acrylate salt, is fed to a polymerization reactor and polymerized.

4. The process of any of claims 1 to 3 wherein the reactor for the polymerization is a continuous kneading reactor, a spray polymerization reactor or a continuous polymerization belt.

5. The process of any of claims 1 to 4 wherein (meth)acrylic acid comprising not more than 2000 ppm of dimers and less than 150 ppm of hydroquinone monomethyl ether is used as an acidic monomer.

6. The process of any of claims 1 to 5 wherein the supersaturated aqueous solution comprises 0.001 to 5 mol% of one or more monomers comprising two or more ethylenically unsupersaturated double bonds.

7. The process of any of claims 1 to 6 wherein the supersaturated aqueous monomer solution is prepared using solid anhydrous (meth)acrylate salt.

8. The process of any of claims 1 to 7 wherein the supersaturated aqueous solution is prepared using solid (meth)acrylate salt having a water content from 0.1% to 10% by weight.

9. The process of any of claims 1 to 8 wherein (meth)acrylate salt is used in the form of a supersaturated aqueous solution or dispersion obtained by neutralization of (meth)acrylic acid with aqueous hydroxide solution, hydroxide, carbonate or hydrogen carbonate.

10. The process of any preceding claim wherein (meth)acrylate and (meth)acrylic acid denotes acrylate and acrylic acid.

11. The process of any preceding claim wherein (meth)acrylate salt denotes alkali metal (meth)acrylate and especially sodium (meth)acrylate.

12. A polymer comprising (meth)acrylate units, obtainable by the process of claims 1 to 11.

13. The use of a solid salt of a (meth)acrylate for preparing a polymer by dissolving a solid salt of a (meth)acrylate in water to form a supersaturated aqueous monomer solution and polymerizing the monomer solution in the presence or absence of another monomer.